AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions of the claims.

Claims 1-80 (Cancelled).

Claim 81 (Previously Presented): A soluble single-chain T cell receptor fusion molecule comprising a T cell receptor and a cytokine or fragment thereof connected by a first peptide linker, wherein the soluble single-chain T cell receptor has one recognition binding site and the cytokine or fragment thereof has a different recognition binding site, wherein the soluble single-chain T cell receptor comprises α and β variable chain TCR covalently linked together by a second peptide linker.

Claim 82 (Previously presented): The soluble T cell receptor fusion molecule of claim 81 wherein the T cell receptor is specific for recognition of a particular antigen.

Claim 83 (Cancelled).

Claim 84 (Withdrawn): The soluble T cell receptor fusion molecule of claim 81 wherein the T cell receptor α and β chains are linked through a non-covalent linkage.

Claim 85 (Previously presented): The soluble T cell receptor fusion molecule of claim 81 wherein the T cell receptor comprises a single chain T cell receptor polypeptide.

Claim 86 (Previously presented): The soluble T cell receptor fusion molecule of claim 81 wherein the cytokine or fragment thereof is specific for recognition of an effector cell.

Claim 87 (Withdrawn): The soluble T cell receptor fusion molecule of claim 81 wherein the biologically active polypeptide comprises an immunoglobulin domain or fragment thereof.

Claim 88 (Withdrawn): The soluble T cell receptor fusion molecule of claim 87 wherein the soluble T cell fusion molecule comprises a first kappa constant light chain immunoglobulin domain or fragment thereof.

Claim 89 (Withdrawn): The soluble T cell receptor fusion molecule of claim 88, wherein the soluble T cell fusion molecule further comprises a first immunoglobin heavy chain constant domain or fragment thereof covalently linked to the molecule.

Claim 90 (Withdrawn): The soluble T cell receptor fusion molecule of claim 89, wherein the soluble T cell receptor fusion molecule further comprises a second immunoglobin heavy chain constant domain or fragment covalently linked to the first immunoglobin heavy chain constant domain or fragment.

Claim 91 (Withdrawn): The soluble T cell receptor fusion molecule of claim 90, wherein the soluble T cell receptor fusion molecule further comprises a second kappa light constant immunoglobin chain domain or fragment thereof.

Claim 92 (Withdrawn): The soluble T cell receptor fusion molecule of claim 87, wherein the soluble T cell receptor molecule comprises a first immunoglobin heavy chain constant domain or fragment thereof covalently linked to the molecule.

Claim 93 (Withdrawn): The soluble T cell receptor fusion molecule of claim 92, wherein the biologically active polypeptide comprises a first kappa light chain constant immunoglobin domain or fragment thereof.

Claim 94 (Withdrawn): The soluble T cell receptor fusion molecule of claim 93, wherein the molecule further comprises a second immunoglobin heavy chain constant domain or fragment covalently linked to the first immunoglobin heavy chain constant domain or fragment.

Claim 95 (Withdrawn): The soluble T cell receptor fusion molecule of claim 94, wherein the molecule further comprises a second kappa light constant chain immunoglobin domain or fragment thereof.

Claim 96 (Withdrawn): A chimeric molecule comprising, on a first chain, a first soluble T cell receptor fusion molecule covalently linked to an immunoglobin heavy chain constant domain or fragment thereof; and, on a second chain covalently linked to the first chain, an immunoglobin heavy chain or fragment thereof.

Claim 97 (Withdrawn): The chimeric molecule of claim 96, wherein the first chain is non-covalently linked to a first kappa constant light chain immunoglobin domain or fragment thereof.

Claim 98 (Withdrawn): The chimeric molecule of claim 97, wherein the second chain is non-covalently linked to a second kappa light chain constant domain or fragment thereof.

Claim 99 (Withdrawn): The chimeric molecule of 96, wherein the immunoglobin heavy chain or fragment of the second chain is covalently linked to a second soluble T cell receptor fusion molecule.

Claim 100 (Withdrawn): A chimeric bispecific molecule comprising a first chain and a second chain, wherein the first chain comprises covalently linked in sequence a soluble T cell receptor fusion molecule and an immunoglobin heavy chain constant domain or fragment; and the second chain comprises an immunoglobin heavy chain or fragment thereof, the first and second chains being non-covalently linked, respectively, to a first immunoglobin kappa constant light chain domain or fragment thereof, and a second immunoglobin kappa constant light chain domain or fragment thereof.

Claim 101 (canceled)

Claim 102 (Previously presented): The soluble T cell receptor fusion molecule of claim 81 wherein the biologically active polypeptide comprises an IL-2 cytokine or a fragment thereof.

Claim 103 (Withdrawn): The soluble T cell receptor fusion molecule of claim 81 wherein the biologically active polypeptide comprises an IL-10 cytokine or a fragment thereof.

Claim 104 (Withdrawn): The soluble T cell receptor fusion molecule of claim 81 wherein the biologically active polypeptide comprises a chemokine or a fragment thereof.

Claim 105 (Withdrawn): The soluble T cell receptor fusion molecule of claim 81 wherein the biologically active polypeptide comprises a growth factor or a fragment thereof.

Claim 106 (Withdrawn): The soluble T cell receptor fusion molecule of claim 81 wherein the biologically active polypeptide comprises GCSF or a fragment thereof.

Claim 107 (Withdrawn): The soluble T cell receptor fusion molecule of claim 81 wherein the biologically active polypeptide comprises GMCSF or a fragment thereof.

Claim 108 (Withdrawn): The soluble T cell receptor fusion molecule of claim 81 wherein the biologically active polypeptide comprises a protein toxin domain or a fragment thereof.

Claim 109 (Withdrawn): A method of preparing a soluble T cell receptor fusion molecule, the method comprising:

providing a T cell receptor chain, or subfragment thereof;

providing a biologically active polypeptide corresponding to a second chain, or subfragment thereof;

connecting the T cell receptor chain and the second chain to a peptide linker; and

recovering the linked T cell receptor fusion polypeptide molecule, thereby generating a T cell receptor fusion molecule.

Claim 110 (Withdrawn): A soluble T cell receptor conjugate molecule comprising a plurality of biologically active molecules covalently bound to a carrier, the carrier being covalently bound to a portion of a T cell receptor, wherein the resulting conjugate is soluble.

Claim 111 (Withdrawn): The soluble T cell receptor conjugate molecule of claim 110 wherein the T cell receptor is specific for recognition of a particular antigen.

Claim 112 (Withdrawn): The soluble T cell receptor conjugate molecule of claim 110 wherein the T cell receptor is a heterodimer comprising α and β chain TCR.

Claim 113 (Withdrawn): The soluble T cell receptor conjugate molecule of claim 110 wherein the T cell receptor α and β chains are linked through a non-covalent linkage.

Claim 114 (Withdrawn): The soluble T cell receptor conjugate molecule of claim 110 wherein the T cell receptor is a single chain T cell receptor.

Claim 115 (Withdrawn): The soluble T cell receptor conjugate molecule of claim 110 wherein the biologically active molecule is a cytotoxic molecule.

Claim 116 (Withdrawn): The soluble T cell receptor conjugate molecule of claim 110 wherein the biologically active molecule is a toxin.

Claim 117 (Withdrawn): The soluble T cell receptor conjugate molecule of claim 110 wherein the biologically active molecule is a chemotherapeutic agent.

Claim 118 (Withdrawn): The soluble T cell receptor conjugate molecule of claim 110 wherein the biologically active molecule is an anti-cancer drug.

Claim 119 (Withdrawn): The soluble T cell receptor conjugate molecule of claim 110 wherein the biologically active molecule is a detectable label.

Claim 120 (Withdrawn): The soluble T cell receptor conjugate molecule of claim 110 wherein the biologically active molecule is a fluorescent compound or an electron transfer agent.

Claim 121 (Withdrawn): The soluble T cell receptor conjugate molecule of claim 110 wherein the biologically active molecule is an enzyme.

Claim 122 (Withdrawn): The soluble T cell receptor conjugate molecule of claim 110 wherein the biologically active molecule is a radioactive compound.

Claim 123 (Withdrawn): A method of preparing a soluble T cell receptor conjugate molecule comprising:

reacting a polymer carrier which has covalently bound a plurality of biologically active molecules with a T cell receptor chain; and

reductively stabilizing the resulting conjugate molecule, wherein the resultant conjugate T cell receptor molecule is soluble.

Claim 124 (Previously presented): A therapeutic composition for treatment of disorders comprising a therapeutically effective amount of the T cell receptor fusion molecule of claim 81 and a sterile, pharmaceutically acceptable carrier vehicle.

Claim 125 (Withdrawn): A therapeutic composition for treatment of disorders comprising a therapeutically effective amount of the T cell receptor conjugate molecule of claim 110 and a sterile, pharmaceutically acceptable carrier vehicle.

Claims 126-146 (Cancelled).

Claim 147 (Previously Presented) The soluble single-chain T cell receptor fusion molecule of claim 81, wherein at least one of the first and second peptide linkers includes from about 7 to 20 amino acids.

Claim 148 (Previously Presented) The soluble single-chain T cell receptor fusion molecule of claim 147, wherein the first and second peptide linkers includes from about 8 to 16 amino acids.

Claim 149 (Previously Presented) The soluble single-chain T cell receptor fusion molecule of claim 148, wherein at least one of the first and second peptide linkers consist of alanine, serine and glycine to provide for flexibility.

Claim 150 (Currently Amended) A therapeutic composition for treatment of disorders comprising a therapeutically effective amount of the T cell receptor fusion molecule of any one of claims 147-149 and 151-152 ~~144-148~~ and a sterile, pharmaceutically acceptable carrier vehicle.

Claim 151 (New) The soluble single-chain T cell receptor fusion molecule of claim 81, wherein at least one of the first and second peptide linkers consists of about 7 to 20 amino acids.

Claim 152 (New) The soluble single-chain T cell receptor fusion molecule of claim 147, wherein the first and second peptide linkers consist of about 8 to 16 amino acids.

Claim 153 (New) A soluble single-chain T cell receptor fusion molecule comprising a T cell receptor and a cytokine or fragment thereof connected by a peptide linker, wherein the soluble single-chain T cell receptor has one recognition binding site and the cytokine or fragment thereof has a different recognition binding site, wherein the soluble single-chain T cell receptor comprises α and β variable chain TCR.

Claim 154 (New) The soluble single-chain T cell receptor fusion molecule of claim 81, wherein the soluble single-chain T cell receptor further comprises a β constant domain covalently linked to the β variable chain.

Claim 155 (New) The soluble single chain T cell receptor fusion molecule of claim 154, wherein the fusion molecule comprises a sequence of covalently linked subunits comprising the sequence: (NH2)-TCR-Vα-- second peptide linker—TCR-Vβ—TCR-Cβ—first peptide linker—cytokine or fragment thereof.

Claim 156 (New): The soluble T cell receptor fusion molecule of claim 155, wherein the cytokine or active fragment thereof comprises an IL-2 cytokine or a fragment thereof.